

# AN INTERPRETATION OF THE MARINE ARCHAEOLOGICAL FINDINGS RECOVERED FROM THE SEA WATERS OF SEA AND CHINESE REGIONS DURING 10<sup>TH</sup> TO 12<sup>TH</sup> CENTURIES IN THE CONTEXT OF CHOLAS-CHINESE ENCOUNTERS

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## Introduction

For the last forty years, many shipwrecks have been located in the SEA and Chinese regions, cargo remnants recovered and material evidences made available for researchers through publications, newsletters and of course displayed in the museums<sup>1</sup>. The material evidences available have been in the form of ceramic ware, metallic objects, anchors, parts of ships and other perishable and non-Acc perishable nature. Huge quantity of ceramic ware found has made the observers, excavators and scholars perplexed, uncomfortable and intrigued also. As far as the metallic objects, limited studies have been made without bringing out complete details identifying their composition, manufacturing techniques and usage. As the terminology in the regional research changes, the studies are also many times resorted to overlapping or isolated representing their point of view.

## The Studies of the Chinese and SEA regions:

The South East Asian and South Asian marine archaeological studies could not be made in isolation restricting to China, SEA countries or India. Till China dominated after 13<sup>th</sup> century<sup>2</sup>, the Indian and Arab influence have to be taken into consideration. As far as India is concerned, the sudden rise and fall of the Cholas (950-1250 CE) as a maritime power is intriguing during the period, as China started surging as a maritime power in the Indian Ocean region. While the Indian studies of NIO and NIOT have been restricted to Indian nautical waters, the Southeast Asian and South Asian marine archaeological studies have been overlapping, but giving more emphasis to their areas. Moreover, the studies of former though mention about "Indian Ocean", but "India" is rarely mentioned in the context, obviously for their scope of investigation. Thus, the shipwreck studies have to be made covering all aspects and could be divided into the following three categories, considering the cross-cultural exchanges taken place in phased manner:

1. The study of ship building and technology.
2. The examination of the goods recovered.
3. The scrutiny of the services involved.

As these issues have been interdependent complex and covering many aspects, only few specific areas are dealt in this paper. Particularly, the role of Cholas (950- 1250 CE) is specifically considered in the context as they cannot be ignored during the material period, as it also coincided with the Song period (960-1279 CE).

## Ships, as named and described by the Chinese literature:

During Tang period, the Indian merchants started visiting Chinese ports of Southern area. Guangzhou could have been the most important international ports in south China by the tenth century, which resulted in the establishment of Shibosi to administrate merchants and ships from those overseas.

Kuwabara (1989) listed names of foreign ships that appeared in several Chinese historical texts that included -

- "Nanhai bo" (南海舶),
- "Fanbo" (番舶),
- "Xinanyi bo" (西南夷舶),
- "Bosi bo" (波斯舶),
- "Kunlun bo" (崑崙舶),
- "Kunluncheng bo" (崑崙乘舶),
- "Xiyu bo" (西域舶),
- "Ban bo" (蠻舶)",
- "Hai bo" (海舶),
- "Nanfanhai bo" (南蕃海舶),
- "Bolumen bo" (波羅門舶),
- "Shiziguo bo" (師子國舶)",
- "Wai guo (外國舶)".

A few of these names simply represent a general term for foreign ships. Ships associated with specific

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groups of people or countries include Bosi (possibly from Persia), Kunlun, Bolumen (possibly from India), and Shiziguo (from Ceylon), although further details of these ships are unclear.

Momoki Shiro<sup>2</sup> gives the following details about the tributary missions sent by "Nan-Hai" countries to China during the Sung dynasty (960-1279):

Here, the Arab missions taking place could have been from land route, as they were not definite as to coming from Central Asia or not i.e. through the traditional Silk route or sea route. In other words, had they wanted to come through ships, they must have engaged Indian ships during the 10th-13th century period.

**Table 1: Numbers of Tribute Missions from the Nan-Hai Countries as Recorded in the Major Sources of the Sung (960-1279).\***

Chiao-chih 交趾;	Ta-li 大理
An-nan 安南 (Dai Viet) 76'	Po-ni 勃泥 (Brunei) 2
Chan-ch'eng 占城 (Champa) 62	Shê-p'o 閩婆 (Java) 2
Ta-shih 大食 (Arab states) 53 <sup>1</sup>	Tan-mei-liu 丹眉流 (Tambralinga?) 2
San-fo-ch'i 三佛齊 (Sri Vijaya) 26	P'u-kan 蒲甘 (Pagan) 2
T'ien-chu 天竺 (North India) 12 <sup>5</sup>	Pin-t'ung-lung 寶同羅 (Panduranga [Ctr Vietnam]) 1
Chên-la 真臘 (Cambodia) 5	San-ma-lan 三麻蘭 (?) 1
P'u-tuan 蒲端 (Butuan [Mindanao]?) 4	P'u-p'o-chung 蒲婆眾 (?) 1
Chu-nien 注量 (Chola) 4	T'u-po 塗勃 (?) 1
Chên-li-fu 真里富 (in Iwr Chaophraya basin?) 3	Lo-hu 羅斛 (Lopburi) 1

Sources: CP; HNYL; YH [vol. 154: *chao-k'ung* 朝貢 (tribute)]; SHY [*fan-i* 蕃夷 (records of barbarians) IV, VII]; SS [*pén-chi* 本紀 (annals) and *wai-kuo chuan* 外國傳 (records of foreign countries)].

\* Some place names remain unidentified. Also some Chinese names cannot be identified with a single state name (as in the cases of Ta-shih and T'ien-chu).

<sup>1</sup> Six more tribute missions are recorded in DVSKTT and DVSL.

<sup>2</sup> One sea-route mission from Wu-hsun 勿巡, two from Ts'eng-tan 屢檀, and those of "a certain country of Ta-shih" (five such countries sent six missions) are included here; those of Ta-shih via the oasis route through central Asia are not.

<sup>3</sup> This number includes nine occasions of tribute offering by Buddhist priests on pilgrimage to China.

The Chinese philology of boat has no correspondence archaeology:

Analyzing the Chinese philology, particularly the words and expressions connected with "chon", "chuan", "pan shao", "thui shao", "chen" etc., found in the Chinese classics, scholars like Worcester, Peri, Poujade pointed out that the Chinese might have seen the boats only during 13<sup>th</sup> century<sup>4</sup>, when the word "shou" denoted "two hands" it could refer to a boat-like object. The Chinese seemed to see the sharpened boats and ships of

other civilizations. For example Chin Tartar Wukusun Chung-Tuan, who had been on diplomatic missions for his country, wrote in his notes about C.1220 of the Islamic lands of the West - "Yin-Tu Hui-Ho", that their boats resembled shuttles used in weaving. In C.1259, when Chhang Te crossed the Syr Daria river on his embassy from Mangu khan to Hulagu Khan, he was so wondered to find a boat resembled<sup>5</sup> "a Chinese woman's pointed and crescent-shaped shoe". Thus during 13<sup>th</sup> century, they could have seen boats to their surprise and only those living in

the coastal areas could have seen full-fledged boats and of course ships. The Chinese shipwrecks clearly show they have been localized, internal and rarely beyond coastal.<sup>7</sup>

Ships identified as belonging to one culture, but with different or characteristic constituting components and building materials point to established shipbuilding practices. They could be termed as "hybrid" but have "mosaic" constituents, if analyzed by constituent elements, design and building practices. The dominant categories became popular in a particular period though incorporating the best of all other cultures. The purchased, captured or seized ships could have been modified to appear as other culture. In fact, the sailors, ship repairers, marine servicemen and others themselves were converted, when their leaders got converted. Thus, the ships and shipbuilding technologies could have been converted to be known as otherwise.

Tansen Sen notes that, "Before the southern Song period, very few, if any, Chinese merchants and ships ventured beyond the South China Sea"<sup>8</sup> adding, "There is no archaeological or conclusive textual evidence for the presence of Chinese vessels in the Indian Ocean before 10<sup>th</sup> cent.CE. Therefore, the dominant maritime power during the period before 10<sup>th</sup> and after 10<sup>th</sup> up to 13<sup>th</sup> century must have been the Indians, specifically pointing to the contemporary Cholas.

**Analysis of the shipwrecks:** Under the Maritime Archaeology Program at Flinders University for "Shipwreck ASIA project", data collections on excavated ships and ship remains have been published.<sup>9</sup> They are taken up for interpretation here. First, the ships excavated and salvaged from China, tabulated in Table.1 annexed, are studied.

Of the 28 shipwreck remnants excavated only two have been identified as oceangoing, that too, used by traders and thus 93% was used for inland / river transportation from -m cent to 18<sup>th</sup> cent.CE.

Of the two oceangoing, Nanghai no.1 has been dated to Song dynasty (960-1279) and Huaguang reef no.1 shipwreck to Song period, but without giving date. For the doubtful case of Sandaogang wreck the period has been assigned to c.13th-14th centuries. The Quanzhou ship has been dated to later 13<sup>th</sup> cent. (C.126S-1274) based on the copper coins discovered ranging from Tang to Song dynasties.

Thus, the sudden Chinese love for overseas and maritime trade during or after 12<sup>th</sup> century is intriguing and the scholars like Jung-Pang Low, Shige Yoshinobu,<sup>10</sup> Tansen Sen<sup>11</sup>, and others pointed out the following points, in the context of the development of Sung navy during 10<sup>th</sup>-11th centuries<sup>12</sup> giving the following reasons:

1. The dominance of foreign traders and ships in the coastal areas of China. China's seaborne trade was largely monopolized by Near Eastern merchants.
2. The necessitated Chinese dependence on them for their experts and imports.
3. As the Song dynasty had to pay for the troubling northern Khitans, Tangus and Jurchens, resorted to maritime commerce to raise funds.
4. Neo-Confucianism subscribed to the philosophy of success and profit.
5. In 971, a Maritime Trade Commission was established in Kuan-chou / Quanzhou to control import and export related issues. Quanzhou was developed as major port with the colonies foreign merchants. The dredging started in 1011 was completed in 1119.
6. After 987, the navy became only an ornamental arm of the government and naval exercises degenerated into water sports for the entertainment of the court. In 1068 the navy was reorganized and recognized navy was used in war against Annam in 1077, however, it could not succeed.
7. Though two shipbuilding yards were established at Hang-chou and Kuang-chou, orders received ships built and supplied to the navy. But, the naval authorities complained that the newly built ships were unseaworthy and they continued to hire or borrow multi-type warships from private ship-owners.
8. The fall of North China to the Jurchen invaders of the new and aggressive state of China in 1127 disrupted the economic life of the Sung Empire.
9. Sale of certificates, hitherto issued to Buddhist clergy to exempt from corvee<sup>13</sup> duties, were sold to the public first time in 1132-34.
10. From the beginning the Sung government encouraged Chinese merchants to import foreign goods and foreign merchants to come to China.

11. Tai-ts'u, the first emperor assured the merchants for protection, fixed the amount of tax assessment on merchandise and formulated regulation on commerce.
12. Pin-t'ieh (a special steel = wootz steel = Indian steel) and pin-t'ieh swords were imported in 1157 for government usage.
13. In 1074, the Chinese merchants were urged to organize trade missions and provided licenses to go aboard to trade with duty exemptions and commissions. The act of merchants going aboard or in ships was prohibited earlier.
14. However, the imports by the foreign merchants were heavily taxed to the extent of 40% Customs duty (in 1144). 25 to 35% of goods were forced to sell to the government at fixed prices.
15. In addition, the Sung court also received large amount of merchandise as gifts from the foreign merchants and as tributes from such states as Annam (of course from other countries also).
16. The goods - pearls, aromatics, rhinoceros horns, ivory tusks, drugs, steel specifically point to India on which only, heavy duties were levied and collected.
17. Thus, during 1087-1198 period, the revenue was doubled.
18. During the Sung period, the piracy was greater than before. The pirates were accommodated in to the Chinese navy, Customs and other duties.

From the above, it is evident that whatever, seaborne ships found on the waters or under the waters dated to that period must have been of non-Chinese origin.

**How the shipbuilding was developed dramatically from Tang to Sung period?:** According to Shiba Yoshinobu,<sup>18</sup> for a long time the Chinese had lagged behind in the development of the maritime technology needed for transoceanic trade. During the Tang period (618-906 CE), the Chinese ships used in trade were small and vulnerable to the hazards of the sea and were only suited for the navigation of shallow coastal water. They were essentially nothing more than slightly modified versions of the ships originally used in inland waterways, thus relying upon Southeast Asian, Persian, and Arabian ships for overseas or transoceanic trade where the Arabs were acting as intermediaries. Though, it is mentioned

by the Chinese scholars that the Arabs "plied the Indian Ocean in large ships, trading at the major ports of India, Ceylon, Java and China", the ownership of the ships was not mentioned. The trade of the region was carried on the ships that were commanded by Southeast Asian, Indian or Muslim-Arab navigators<sup>19</sup>. It appears that for the western researchers, the differentiation between the Indian and Muslim-Arab navigators and as well as the ships pose problem<sup>20</sup>.

When Sung period (960-1279 CE) came, they claim that, "Chinese made great advances in the constructions of seagoing junks". Changing "junks" to "ships", Shiba Yoshinobu<sup>19</sup> says that "the ships were built with iron nails and waterproofed with special oil. Their equipment included watertight bulkheads, buoyancy chambers, floating anchors, axial rudders in place of steering oars, scoops for taking samples off the seafloor, and small rockets propelled by gunpowder. The Chinese learned many of their techniques of navigation and shipbuilding from Arabs, and in their use of iron nails, watertight bulkheads, pinewood planks, and floating anchors surpassed their teachers. Their ships were, in fact, more seaworthy than those of the Arabs. It is not surprising, therefore, that from tenth century on, foreign merchants chose, when possible, to travel on Chinese ships".

**The examination of the goods recovered:** The cargo ships bound for a particular country naturally would contain the goods what that country wanted. The intermediaries would have dealt with such goods during their long journey dealing with all goods to save their time and cost. Suppose an Arab trading group coming from the Persian gulf would naturally bring the goods required by the Indian and Chinese, after delivering the goods at the Indian ports, they collect more goods for China to reach the final Chinese destination. Thus, in between, if something happens, depending upon the goods available and the ship used, no conclusive decision could be taken about the ownership. Considering the transition taken place in the usage of ships, it is evident that till 13<sup>th</sup> century, the non-Chinese ships must have been used for maritime trade by the involved countries. Thus, the possibility is narrowed down to India and Arabian Peninsula. However, during the Chola period, the ships used must have been Indian considering the evidences that the Arabs reportedly

adopted and adapted the Indian methods. The embassies or the tributary missions sent by the Cholas to the Chinese emperors show that the goods which were required by them were given to them. The Quanzhou evidences prove that the Indian ships had sailed to the Chinese ports to deliver Indian goods and they brought the required Chinese goods back to India. Thus, the pre-13<sup>th</sup> century cargo could have contained both the Chinese and Indian goods. The period 900-1300 period appears to be Indian globalization of trade and commerce and therefore, the Indian goods were most sought after by other countries and that is why, in fact, "sea route" was discovered to come to India and not to China.

**The scrutiny of the services involved :** The sailing of ships from the ports of one country to another and back involved many services - navigation (steering, map-reading, direction-finding, piloting),

- ✓ climatology (understanding seasonal winds, oceanic currents, flora and fauna of the coastal areas of different countries)
- ✓ onboard activities (storing, cooking, rationing)
- ✓ repair and maintenance
- ✓ loading and unloading
- ✓ Interpreters.

In every ship, port, and on board, these services were used by the people groups without any differentiation. They had common beliefs, fears and enjoyments on the land, board and waters exhibited in the rites, rituals, festivals of Ships, oceangoing and Sea-goddess. For these activities, traditionally, different groups of people were engaged like migamans (piloting), laskars (all types of sailing), marakkalanayagars (piloting, managing navigation), dubhashis (interpreters) etc. Incidentally, the shipwrecks did not contain any human skeletons implying that all on the board escaped foreseeing or knowing the disaster. The Indian and Arab accounts show that the respective people were engaged in such activities, without any religious differentiation. Perhaps, at that point such separation was not there, till it was introduced or made to feel with the establishment of Mohammedan/Mughal rule at Delhi. Such phenomenon was also noted in the Chinese port cities up to 13<sup>th</sup>- 14th centuries. The Indian and Chinese accounts also demonstrate that the Buddhist- Brahman divide was not explicit, till the Neo-Confucianism separated the

Chinese and Indian distinguishably<sup>20</sup> (Confucian, Daoist and Buddhist)<sup>21</sup>. The basis literature talk about the traditional navigational skills, techniques and practices followed by the people groups.

#### **Marine archaeological evidences and recovery:**

Michael Flicker has analyzed the issues and problems involved in the exploration, recovery, preservation and disposal of the marine archaeological evidences<sup>22</sup>. Embracing his ideas, they are listed as follows:

- Shipwreck discoveries fetch millions of dollars in auction.
- Commercial companies engaged in marine archaeological discoveries speculating treasures.
- Illegal marine archaeological excavations by the Commercial companies and as well as the respective countries.
- Legal and illegal explorations carried on under the guise oil and mineral explorations.
- EEZ, SEZ and other LPG factors affecting the marine archaeology and recovered material evidences.
- Nexus among the fishermen, amateur scuba divers and company employed divers.
- The recovered cargo thus is dispersed to different destination for profits and escaped for research and study in historical perspective.
- All discoveries are not publicized, properly accounted and all material evidences recovered testified.
- Thousands of similar or same cargo recovered face practical problems without any utility value e.g. millions of ceramic ware recovered.

When these issues plague the evidences recovered, the interpretation comes thereafter, is limited to the available evidences out of the recovered. Under such circumstances, if the professional, technical and regional bias come into play, the real facts are not reflected in the studies.

**Marine archaeological evidences and historical interpretation:** Marine archaeology is related to the land archaeology, as the material culture of the land is transferred to the marine domain, due to natural calamities or man-made disasters. However, whether the material evidences recovered from the marine excavations could exactly reflect the past of the men on the land or vice versa within the limitations is debatable in any critically analyzed hypothesis or

thesis. Therefore, only the available, discovered and recovered remnants play a crucial role for historical interpretation. Moreover, the marine archaeology discoveries have also been delved upon such findings. In the context, it may be interesting to note what Geoff Baileys<sup>2</sup> aptly observed in the case of "Loss of evidence" as follows:

*"Three principal reasons can be identified for the longstanding scepticism of professional archaeologists. The first is the widespread belief that evidence for human occupation of now drowned landscapes and coastlines is unlikely to have survived inundation. Or, if archaeological evidence has survived, it is likely to be so difficult to locate and recover that it would be as difficult as looking for a needle in a haystack, perhaps worse, because, so the argument goes, we do not even know with any confidence where the haystacks are. The destruction of material by the pounding of surf as the rising waters engulfed ancient settlements, the displacement or burial of material by submarine erosion or accumulation of sediments, or the loss of stratigraphic integrity and removal of contextual information, can all be cited as powerful reasons for doing nothing."*

The human remnants created out of settlement and their left out on the coastal areas might not be available for the subsequent periods and therefore, the archaeological evidences after a thousand years might not be conducive for correct interpretation. As the time passes on and as even the land archaeological evidences change, the marine archaeological evidences might transform leading to varied interpretation. Above all, due to natural calamities like cyclones, tsunami and sea level

changes, even the marine archaeological evidences might get affected at various levels and hence loosing the reliability further. Under such circumstances only, the other correlative and corroborative evidences are taken into consideration. Here, in the context of Chinese documents, the language, reading, understanding and interpretation of the words and expressions change from scholar to scholar and hence for non-Chinese scholar, the reliability get further limited. With all these factors, the studies have to be carried on.

To Conclude during the imperial period of the Cholas (950-1250), the movement of the Cholas, the Chinese, the SEA counterparts and the Arabs had been regular, the overseas trade necessitated ships carrying goods and people, and the peoples involved interacted with each other exchanging ideas of material and non-material culture. In such a cross-culture or miscegenation of cultures, each factor could be viewed in prismatic and mosaic perspective or variety in specific convergence and congruence. The predominant reflection of the divergence, variance and difference could be analyzed and understood only on the underlying, fundamental and essential factors. The absence of evidence cannot be an evidence to negate the evidence of the overseas expeditions of the Cholas, as otherwise, all the involved would have been dealing with unhistorical and imaginary people, goods and services. But, the material and non-material evidences prove the presence of the Cholas during the material period and therefore, the marine archaeological evidences may be interpreted accordingly. In such scrutiny, critical analysis and sustainable interpretation, the presence, influence and contribution of the Cholas could be discerned and appreciated.

#### Notes & References

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13. Though, these details are found scattered, have been arranged chronologically in context for understanding the issue of development of Chinese navy and usage of non-Chinese till 13<sup>th</sup> century by the Chinese rulers, commissioners agents and oversea traders.
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